REMARKS

I.   Claim Objections

The Examiner objected to claims 7 and 16 because of the following informalities: "based on an analysis ergonomic data." There was a missing "of" in the sentence.

The Applicant notes that claims 7 and 16 have been amended to correct these informalities. The Applicant submits that no new matter has been introduced with any of these amendments. Based on the foregoing, the Applicant respectfully requests that the Examiner's objections to claims 7 and 16 be withdrawn.

II.   Claim Rejections – 35 U.S.C. § 102

Prima Facie Anticipation Under 35 U.S.C. § 102

A general definition of *prima facie* unpatentability under 35 U.S.C. § 102 is provided at 37 C.F.R. §1.56(b)(2)(ii):

> A *prima facie* case of unpatentability is established when the information *compels a conclusion* that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability. (*emphasis added*)

"Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." *W.L. Gore & Associates v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983) (citing *Soundscriber Corp. v. United States*, 360 F.2d 954, 960, 148 USPQ 298, 301 (Ct. Cl.), adopted, 149 USPQ 640 (Ct. Cl. 1966)), *cert. denied*, 469 U.S. 851 (1984). Thus, to anticipate the Applicants' claims, the reference(s) cited by the Examiner must disclose each element recited therein. "There must be no difference

between the claimed Invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention." *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 18 USPQ 2d 1001, 1010 (Fed. Cir. 1991).

To overcome the anticipation rejection, the Applicants need only demonstrate that not all elements of a *prima facie* case of anticipation have been met, *i. e.*, show that the reference cited by the Examiner fails to disclose every element in each of the Applicants' claims. "If the examination at the initial state does not produce a prima face case of unpatentability, then without more the Applicant is entitled to grant of the patent." *In re Oetiker*, 977 F.2d 1443, 24 USPQ 2d 1443, 1444 (Fed. Cir. 1992).

Costello et al.

Claims 1, 4-7, 10 and 13-16 were rejected under 35 U.S.C. 102(b) as being anticipated by Costello et al. (USP 5,964,719) (hereinafter Costello).

The Examiner argued with regard to claims 1 and 10 that Costello discloses a method and system comprising: a) accessing an electronic portal that collects and provides ergonomic tool data to a user of said portal (Examiner cited Col. 4, lines 35-40), and b) compiling ergonomic data based on physical input provided by user to said electronic portal in order to generate ergonomic tool data to user based on physical input (Examiner cited Col. 2, lines 7-65).

The Applicant respectfully disagrees with this assessment. First, Costello fails to disclose an electronic portal that collects and provides ergonomic tool data. Instead Costello discloses a user-friendly interface for calibration and data acquisition (e.g., see Col. 4, lines 35-37 of Costello). Next, Costello fails to disclose compiling ergonomic data in order to generate ergonomic tool data as by Applicant. Although, Costello Identifies potentially harmful patterns and/or levels of repetitive stress (e.g., see Col. 4, lines 38-39 of Costello), Costello does not generate ergonomic tool data. In fact, Costello fails to disclose anything about ergonomic tool data or generating ergonomic tool data for a user. While Applicant discloses an electronic portal that collects and provides ergonomic tool data to a user of the portal and compiles ergonomic data to generate ergonomic

tool data, Costello discloses an apparatus that includes dissimilar <u>sensors</u> for converting musculoskeletal activities into electronic signals, each sensor being input to a channel (e.g., see Col. 2, lines 25-28 of Costello) with features including two <u>visual displays</u>, a <u>memory</u>, and a <u>processor</u> (e.g., see Col. 2, lines 36-39 of Costello). Based on the above assessment, Costello simply does <u>not</u> disclose the limitations of Applicant's claims 1 and 10.

The Examiner argued with regard to claims 4 and 13 that Costello discloses a method and system as in claim 1 and further discloses generating specific ergonomic data in response to compiling ergonomic data based on physical input provided by a user to an electronic portal in order to generate ergonomic tool data to user based on physical input (Examiner cited Col. 2 lines 7-65 and Col. 3, lines 1-11).

The Applicant respectfully disagrees with this assessment. The Applicant notes that the arguments above for claims 1 and 10 equally apply to the rejection of claims 4 and 13. In addition, Costello fails to teach generating specific ergonomic data based on physical input provided by the user. In contrast, Costello discloses a method of simultaneously collecting data regarding several different types of musculoskeletal stresses (See Col. 2, line 67 to Col. 3, line 1). Costello does <u>not</u> generate <u>specific</u> ergonomic tool data for a user <u>based</u> on the user's input, Costello instead shows a real-time graphical visual display of the magnitude of the force and EMG measurements associated with each sensor in a particular group of sensors as a function of time (See Col. 5, lines 43-46). While Costello discusses an apparatus for <u>collecting data</u> about musculoskeletal stresses (See Col. 6, lines 6-7), Applicant discloses a method to <u>generate specific ergonomic</u> tool <u>data</u> to a user based on input from a user. Based on the analysis above, Costello fails to disclose each and every element of Applicant's rejected claims 4 and 13.

The Examiner argued with regard to claims 5 and 14 that Costello discloses generating specific ergonomic data in response to compiling ergonomic data based on physical input provided by user to electronic portal in order to generate ergonomic tool data to user based on physical input as in Claim 4 and 13 above and further discloses specific ergonomic data comprising a plurality of

output variables representative of weight, twist, grasp, pull, push and motor skills of user (Examiner cited Col. 2, lines 65-67 and Col. 3, lines 1-11).

Applicant respectfully disagrees with this assessment. First, the arguments made above regarding the rejection to claims 4 and 13 equally apply to claims 5 and 14. Second, Costello discloses sensing EMG signals associated with activity of a muscle, sensing force signals associated with a body contacting an object and angular position signals associated with a position of a body joint (See Costello Col. 3, lines 3-6), which differs from Applicant's claim limitations disclosing output variables representative of weight, twist, grasp, pull, push and motor skills of a user. Based on the analysis, Costello discloses something different than Applicant's claims 5 and 14. For example, Costello's sensing signals correspond to musculoskeletal stresses while Applicant's output variables correspond to movement associated with using tools. Therefore, Costello does not disclose each and every element of Applicant's rejected claims 5 and 14.

The Examiner argued with regard to claims 6 and 15 that Costello discloses generating specific ergonomic data in response to compiling ergonomic data based on physical input provided by user to electronic portal in order to generate ergonomic tool data to user based on physical input as in Claim 4 and 13 above and further discloses analyzing and comparing said specific ergonomic data to data maintained within a database to thereby provide particular tool data matching said specific ergonomic data associated with said user (Examiner cited Col. 4, lines 27-40).

Applicant respectfully disagrees with this assessment. First, the arguments made above regarding the rejection to claims 4 and 13 equally apply to claims 6 and 15. Next, Costello fails to compare specific ergonomic data to data maintained within a database to provide particular tool data to a user. Instead, Costello teaches a system application program to calibrate any channel, collect data while exhibiting said data in either graphical or numerical format, convert binary data files to an ASCII format and change data acquisition rates (See Col. 4, lines 41-46). Costello never mentions comparing data to data maintained within a database. In addition, Costello fails to disclose providing particular tool data to a user. Costello only provides for a portable computer to

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receive, store and graphically display data corresponding to the force, angular position or EMG activity measure by each sensor (See Col. 4, lines 27-33), Costello does not compare these data to other data maintained in a database to provide particular tool data matching specific ergonomic data associated with a user. Thus, Costello fails to disclose each and every element of Applicant's rejected claims 6 and 15.

The Examiner with regard to claims 7 and 16 argued that Costello discloses a method and system as in claim 1 above and further discloses generating a plurality of risk factors for said user based on an analysis of ergonomic data compiled based on physical input provided by said user to said electronic portal in order to generate ergonomic tool data to said user based on said physical input (Examiner cited to Col. 2, lines 24-65).

Applicant respectfully disagrees with this assessment.   First, the arguments made above regarding claim 1 equally apply to claims 7 and 16. Second, Costello fails to disclose generating a plurality of risk factors. Costello only discloses displaying real-time numeric representation of the levels of musculoskeletal activities being monitored (See Col. 2, lines 40-42) and identifying potentially harmful patterns of repetitive stress (See Col. 2, line 49). No where does Costello disclose generating a plurality of risk factors, such as high risk, medium risk or low risk. Costello does not generate data based on an analysis of ergonomic data as revealed by Applicant's claims 7 and 16, Costello simply displays and identifies data collected from electronic signals from sensors (See Col. 2, lines 24-65). Based on the analysis above, Costello fails to disclose each and every element of Applicant's rejected claims 7 and 16.

Based on the aforementioned analysis, it is clear that Costello does not disclose each and every element of the rejected claims.

The Applicant reminds the Examiner that in order to succeed in a rejection to a claim or a group of claims under 35 U.S.C. 102(b), the reference cited as a basis for rejecting the claim(s) at issue must disclose each and every element of the rejected claim. If, as indicated above with respect to the requirements for prima facie anticipation under 35 U.S.C. 102 as indicated above, even one element or feature of the rejected claim(s) is not disclosed in the cited reference,

the rejection fails and must be withdrawn.

Based on the foregoing, the Applicant submits that Costello fails to disclose every element and limitation of Applicant's claims 1, 4-7, 10 and 13-16. Thus, Applicant submits that the rejection to claims 1, 4-7, 10 and 13-16 has been traversed. Therefore, Applicant respectfully requests withdrawal of the rejection to claims 1, 4-7, 10 and 13-16.

III.   Claim Rejections – 35 U.S.C. § 103

Requirements for Prima Facie Obviousness

The obligation of the examiner to go forward and produce reasoning and evidence in support of obviousness is clearly defined at M.P.E.P. §2142:

> The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

M.P.E.P. §2143 sets out the three basic criteria that a patent examiner must satisfy to establish a *prima facie* case of obviousness:

1. some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;

2. a reasonable expectation of success; and

3. the teaching or suggestion of all the claim limitations by the prior art reference (or references when combined).

It follows that in the absence of such a *prima facie* showing of obviousness by the Examiner (assuming there are no objections or other grounds for rejection), an applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443 (Fed. Cir. 1992). Thus, in order to support an obviousness rejection, the Examiner is obliged to produce evidence compelling a conclusion that each of the three aforementioned basic criteria has been met.

Costello et al. in view of Walker et al.

Claims 2, 3, 8, 9, 11, 12, and 17-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Costello et al. (USP 5,964,719) (hereinafter referred to as "Costello") in view of Walker et al. (USP 6,452,584 B1) (hereinafter referred to as "Walker").

Regarding claims 2 and 11, the Examiner argued that Costello discloses a method and system as in claims 1 and 10 above but admitted that Costello does not explicitly disclose: a) generating a three dimensional interactive graphic for display on a display screen for said user; b) prompting said user to interact with said three dimensional interactive graphic utilizing a user input device; and c) collecting ergonomic data from said user based on input provided by user through said user input device in association with said three dimensional graphic displayed on said display screen for said user. However, Examiner argued that Walker discloses a system for data management based on hand gestures and further discloses the three dimensional interactive graphic display (Examiner cited to Walker Col. 1, lines 55-60, Col. 2, lines 21-29 and Col. 3, lines 4-17). Therefore, Examiner argued that is would have been obvious to one having ordinary skills in the time o the art to add the interactive three-dimensional graphic to Costello. The Examiner stated that one would have been motivated to add the interactive graphic because it adds clarity to instructions, they can be relayed verbally or visually.

The Applicant respectfully disagrees with this assessment. Regarding Applicant's amended claims, neither Costello nor Walker, suggest or disclose alone or in combination with one another ALL of the claim limitations.

First, the arguments made above against the 102(b) claim rejections apply equally against all the 103 claim rejections. Additionally, as admitted by the Examiner, Costello fails to disclose the three-dimensional graphic.

Applicant respectfully disagrees with Examiner that one skilled in the art would be motivated to combine Costello and Walker. In addition to the differences between Applicant's invention and Costello described earlier, one skilled in the art would not be motivated to combine Costello with Walker

because Walker teaches a system for manipulating computer generated animation in real time, such as a virtual reality program running on a computer including a data management device (See Walker Abstract). Walker does not contemplate using a system for manipulating computer generated animation in a portable electronic data collection apparatus (See Costello, Col. 2, lines 25-26). There would be no motivation for one skilled in the art of computer generated animation to combine an invention about computer generated animation with an invention about a portable electronic data collection apparatus for monitoring musculoskeletal stresses.

In addition, with regard to Applicant's claims 2 and 11, Walker fails to disclose generating a three-dimensional interactive graphic for display on a display screen for a user prompting the user to interact with said three-dimensional interactive graphic utilizing a user input device. Instead, Walker teaches a system for interacting with computer animation in "real time" wherein a person can interact with the animation while the animation is running (See Col. 3, lines 10-13). Walker contemplates using its invention for manipulating computer animation, not data entry into an electronic portal for collecting ergonomic data as taught by Applicant. Walker also fails to disclose collecting ergonomic data from a user based on input provided by the user through said user input device in association with said three-dimensional graphic displayed on said display screen for the user. For instance, Walker never mentions using the invention for collecting ergonomic data using a three-dimensional graphic. In fact, Walker teaches away from collecting ergonomic data because Walker teaches data that is continuously processing so that an object in the virtual environment displayed on the computer can be manipulated in real time while the program is running (See Col. 4, lines 2-6). Therefore, according to Walker, data is not collected because it is continuously being processed. Based on this analysis, Costello and Walker fail to disclose the elements of claims 2 and 11.

Regarding claims 3 and 12, Examiner argued that Costello and Walker disclose a method and system as in claim 2 and 11 and Costello further discloses a user input device that comprises a motion detector configured with a plurality

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of pressure and weight sensors (Examiner cited to Costello Col. 2, lines 50-59, Col. 3, line 44 to Col. 4, line 14).

Applicant respectfully disagrees that Costello and Walker disclose the elements of Applicant's claims 3 and 12. First, the arguments made for claims 2 and 11 above apply equally to claims 3 and 12. Furthermore, Costello fails to disclose a user input device that comprises a motion detector configured with a plurality of pressure and weight sensors. Instead Costello discloses surface EMG electrodes for measuring electrical muscular activity, variable force sensing resistors and goniometers (See Costello Col. 2, lines 51-56). Costello also fails to use a plurality of pressure and weight sensors. In contrast, Costello uses EMG sensors, FSR sensors and goniometers (See Costello Col. 4, lines 50-52 and 63-64), not a motion detector configured with a plurality of pressure and weight sensors. Therefore, Costello and Walker fail to disclose each and every element of Applicant's rejected claims 3 and 12.

Regarding claims 8 and 18, Examiner argued that Costello discloses generating a plurality of risk factors for said user based on an analysis of ergonomic data compiled based on physical input provided by said user to said electronic portal in order to generate ergonomic tool data to said user based on said physical input as in claims 7 and 16 above and further discloses: a) a high risk factor, wherein ergonomic injury is likely to said user (Examiner cited Costello Col. 2, lines 60-67 and Col. 4, lines 14-40).; b) a medium risk factor, wherein on a short term basis, a substantial risk to said user is unlikely to occur (Examiner cited Costello Col. 2, lines 60-67 and Col. 4, lines 14-40); and a limited risk factor, wherein said user faces a highly unlikely risk of injury (Examiner cited Costello Col. 2, lines 60-67 and Col. 4, lines 14-40). However, the Examiner admitted that Costello does not disclose d) the plurality of risk factors being graphically represented for user on a display screen as a graphical representation on a display screen. The Examiner argued that Walker discloses a graphical representation on a display screen. Therefore, Examiner stated that it would have been obvious to one having ordinary skill in the art at the time of the invention to combine graphical display with the risk factors of Costello.

The Applicant respectfully disagrees that both Costello and Walker disclose all the elements of Applicant's rejected claims 8 and 18. First, the arguments made above regarding the 102(b) rejections of claims 7 and 16 equally apply to the 103(a) rejections of claims 8 and 18. Second, Costello fails to disclose the risk factors as taught by Applicant's claims 8 and 18. In fact, Costello never mentions a high risk factor, a medium risk factor or a limited risk factor as taught by Applicant. Costello instead teaches that the unit may be calibrated by bringing an output level of the unit into substantial agreement with sampled maximum and minimum values of the various signals to be measured, presenting all output information as a percentage of the sampled maximum and minimum values (See Costello Col. 2, lines 60-65). Costello therefore teaches a method for calibration, not a plurality of risk factors such as high, medium and limited as taught by Applicant. In addition, instead of generating risk factors, as taught by Applicant, Costello simply displays a number corresponding to the force, angular position and EMG measurements associated with each sensor in a particular group of sensors (See Col. 4, lines 19-22). Costello simply never discloses the risk factors as taught by Applicant's claims 8 and 18.

Furthermore, Walker fails to teach said plurality of risk factors are graphically represented for said user on a display screen as a graphical representation of a human body. Walker instead discloses that data generated from the control signal outputs from the glove is transmitted to the computer for processing in real time. The data is continuously processed so that an object in the virtual environment displayed on the computer can be manipulated in real time while the program is running (See Col. 3, line 67 to Col. 4, line 6). Thus, while data is displayed on a computer in Walker, a plurality of risk factors are not graphically represented for a user on a display screen as a graphical representation of a human body. Walker therefore fails to disclose a graphical representation on a display screen as taught by Applicant.

Regarding claim 17, Examiner argued that Costello discloses generating a plurality of risk factors for said user based on an analysis of ergonomic data compiled based on physical input provided by said user to said electronic portal in order to generate ergonomic tool data to said user based on said physical

Input as in claim 16. The Examiner admitted that Costello does not disclose a data input glove and glove portion, which can be worn on a hand of a user and data input gloves generating data control signals. However, Examiner argued that Walker discloses a system for data management based on hand gestures and further discloses a data input glove and glove portion, which can be worn on a hand of a user and data input gloves generating data control signals (Examiner cited to Walker Col. 1, lines 18-65 and Col. 4, lines 7-33). Therefore, the Examiner stated that it would have been obvious to one having ordinary skills at the time of the invention to incorporate the data glove in Costello.

The Applicant respectfully disagrees that Costello and Walker disclose all of the elements of Applicant's rejected claim 17. First, the arguments made above for the 102 rejections of claims 10 and 16 equally apply to claim 17. Second, Walker fails to disclose a data input glove which can be worn on a hand of a user and wherein said data input glove generates data controls signals processible by a computer which communicates with said data input glove via a data cable. Instead, Walker discloses that data gloves are currently used in several virtual reality related applications ranging from virtual reality entertainment and education systems to medical rehabilitation applications (See Col. 1, lines 56-59). Walker does not mention using a data input glove for _generating_ data control signals processible by a computer which _communicates_ with the data input glove via a data cable as taught by Applicant. Walker only contemplates using a glove with a signal processing means that multiplexes the signals and then transmits the multiplexed signals to a computer (See Col. 4, lines 29-32). This differs from what Applicant teaches in claim 17 because claim 17 generates data while Walker simply transmits signals. Based on the aforementioned analysis, Costello and Walker fail to disclose each and every element of claim 17.

Regarding claims 9 and 19, Examiner argued that Costello discloses a method and system as in claims 1 and 10, but admitted that Costello does not disclose a search engine associated with the electronic portal, wherein search engine is accessible by said user through electronic portal to automatically identify tool data that are potentially ergonomically appropriate. However, the Examiner argued that Walker discloses allowing other programs to run with the

virtual reality program for processing data. Therefore, the Examiner stated that it would have been obvious to one having ordinary skill at the time of the art to allow a processing data program to take Costello ergonomic data and find an appropriate data for user.

The Applicant respectfully disagrees with this assessment. First, the arguments made above regarding the 102 rejection for claims 1 and 10 apply equally to claims 9 and 19. Second, Walker fails to disclose associating a search engine with an electronic portal, wherein said search engine is accessible by said user through said electronic portal to automatically identify tool data that are potentially ergonomically appropriate for said user, based on said ergonomic data compiled based on physical input provided by said user, as taught by Applicant. In fact, Walker never discusses using a search engine with an electronic portal. Instead, Walker simply discloses a data management device that manages data based on the hand gestures (See Col. 3, lines 35-37), and does not discuss the physical input provided by a user as taught by Applicant. Third, Walker does not disclose anything about automatically identifying tool data that are potentially ergonomically appropriate for a user. Walker only provides a system for manipulating computer generated animation in real time that includes a data management device which manages data based on the hand gestures of an operator that can be used repeatedly without causing harm (See Col. 3, lines 45-48). Walker never contemplates automatically identifying tool data. Based on these differences, Costello and Walker fail to disclose each and every element of claims 9 and 19.

Finally, with regard to claim 20, Examiner argued that Costello discloses a system comprising: a) an electronic portal that collects and provides ergonomic tool data to a user of said portal (Examiner cited Costello Col. 4, lines 35-40). Examiner admitted that Costello does not disclose an electronic portal that can be displayed graphically on a display screen. However, Examiner argued that Walker does disclose a portal being displayed graphically (Examiner cited Walker Col. 3, lines 4-17). Examiner also argued that Walker discloses: b) a user input device, wherein said user is prompted via said display screen to interact with said three-dimensional interactive graphic utilizing said user input device. (Examiner

cited Walker Col. 2, lines 21-39 and Col. 4-17). Therefore, Examiner stated that it would have been obvious to one having ordinary skills at the time of the art to add the interactive three-dimensional graphic to Costello. The Examiner also argued that Costello discloses c) a compilation module for compiling ergonomic data based on physical input provided by said user to said electronic portal through a user input device in order to generate ergonomic data to user based on said physical input, wherein specific ergonomic data comprises a plurality of output variables representative of weight, twist, grasp, pull and motors skills (Examiner cited Costello Col. 2, line 65-Col. 3, line 11); d) an analysis module for analyzing and comparing specific ergonomic data to data maintained within a database (Examiner cited Costello Col. 4, lines 27-40); and e) generating a module for automatically generating a plurality of risk factors for user based on analysis ergonomic data compiled in response to physical input provided by user to electronic portal via user input device (Examiner cited Costello Col. 2, lines 24-65).

Applicant respectfully disagrees with Examiner's assessment. First, Costello fails to disclose an electronic portal that collects and provides ergonomic tool data. Instead Costello discloses a user-friendly interface for calibration and data acquisition (See Col. 4, lines 35-37). In addition, Costello fails to disclose compiling ergonomic data in order to generate ergonomic tool data as taught by Applicant. Although Costello identifies potentially harmful patterns and/or levels of repetitive stress (See Col. 4, lines 38-39), Costello does not disclose generating ergonomic tool data. In fact, Costello fails to disclose anything about ergonomic tool data or generating ergonomic tool data for a user. While Applicant discloses an electronic portal that collects and provides ergonomic tool data to a user of the portal and compiles ergonomic data to generate ergonomic tool data, Costello discloses an apparatus that includes dissimilar sensors for converting musculoskeletal activities into electronic signals, each sensor being input to a channel (See Costello Col. 2, lines 25-28) with features including two visual displays, a memory, and a processor (See Costello Col. 2, lines 36-39).

Second, Walker fails to disclose a portal being displayed graphically. Instead, Walker teaches a system for interacting with computer animation in

"real time" wherein a person can interact with the animation while the animation is running (See Walker Col. 3, lines 10-13). Walker contemplates using its invention for manipulating computer animation, not displaying an electronic portal graphically on a display screen for a user as taught by Applicant's claim 20.

Third, Walker fails to disclose a user input device, wherein said user is prompted via said display screen to interact with said three-dimensional interactive graphic utilizing said user input device. Walker provides a system for interacting with computer animation in "real time" (See Walker Col. 3, lines 11-12), but does not consider using a user input device to interact with a three-dimensional interactive graphic display.

Fourth, Costello fails to teach generating specific ergonomic data based on physical input provided by the user. In contrast, Costello discloses a method of simultaneously collecting data regarding several different types of musculoskeletal stresses (See Costello Col. 2, line 67 to Col. 3, line 1). Costello does not generate specific ergonomic tool data for a user based on the user's input, Costello instead shows a real-time graphical visual display of the magnitude of the force and EMG measurements associated with each sensor in a particular group of sensors as a function of time (See Costello Col. 5, lines 43-46). While Costello teaches an apparatus for collecting data about musculoskeletal stresses (See Costello Col. 6, lines 6-7), Applicant teaches a method to generate specific ergonomic tool data to a user based on input from a user. Applicant also teaches output variables representative of weight, twist, grasp, pull, push and motor skills of a user. Costello fails to disclose these output variables. Instead, Costello teaches sensing EMG signals associated with activity of a muscle, sensing force signals associated with a body contacting an object and angular position signals associated with a position of a body joint (See Costello Col. 3, lines 3-6). Costello's sensing signals correspond to musculoskeletal stresses while Applicant's output variables correspond to movement associated with using tools.

Fifth, Costello fails to analyze and compare specific ergonomic data to data maintained within a database to provide particular tool data to a user. Instead, Costello teaches a system application program to calibrate any channel, collect data while exhibiting said data in either graphical or numerical format, convert binary data files to an ASCII format and to change data acquisition rates (See Costello Col. 4, lines 41-46). Costello never mentions comparing data to data maintained within a database. In addition, Costello fails to disclose providing particular tool data to a user. Costello only provides for a portable computer to receive, store and graphically display data corresponding to the force, angular position or EMG activity measure by each sensor (See Costello Col. 4, lines 27-33), Costello does not compare these data to other data maintained in a database to provide particular tool data matching specific ergonomic data associated with a user as taught by Applicant.

Finally, Costello fails to disclose generating a plurality of risk factors. Costello only teaches displaying real-time numeric representation of the levels of musculoskeletal activities being monitored (See Costello Col. 2, lines 40-42) and identifying potentially harmful patterns of repetitive stress (See Costello Col. 2, line 49). No where does Costello disclose generating a plurality of risk factors, such as high risk, medium risk or low risk. Costello does not disclose generating data based on an analysis of ergonomic data, Costello simply displays and identifies data collected from electronic signals from sensors (See Costello Col. 2, lines 24-65). The analysis above demonstrates that Costello and Walker fail to disclose each and every element of Applicant's rejected claim 20.

Based on the foregoing, the Applicant submits that the Examiner's rejection to claims 2, 3, 8, 9, 11, 12, and 17-20 fails under all three prongs of the aforementioned prima facie obviousness test. First, the Examiner has not provided some suggestion or motivation, either in the references themselves of in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings as argued by the Examiner. Second, the Examiner has not provided an explanation of a reasonable expectation of success for such a combination, particularly in light of the evidence above that demonstrates Costello and Walker lack the essential

teaching of claim limitations such as, for example, an electronic portal that collects and provides ergonomic tool data to a user where the electronic portal can be displayed graphically on a display screen for the user and a user input device prompts a user to interact with a three-dimensional interactive graphic utilizing the user input device. Third, the Examiner has not provided for the teaching or suggestion of all the claim limitations by the prior art references when combined.

Regarding the issue of motivation with respect to the first prong of the aforementioned prima facie obviousness test, the Applicant reminds the Examiner that the language of the references may not be taken out of context and combined without motivation, in effect producing the words of the claims (and sometimes, not even the words or concepts of the claims), without their meaning or context. The resultant combination would not yield the invention as claimed. The claims are rejected under 35 U.S.C. §103(a) and no showing has been made to provide motivation as to why one of skill in the art would be motivated to make such a combination, and further fails to provide the teachings necessary to fill the gaps in these references in order to yield the invention as claimed. The rejections under 35 U.S.C. §103(a) have provided no more motivation than to simply point out the individual words of the Applicant's claims among the references, but without the reason and result as provided in the Applicant's claims and specification, and without reason as to why and how the references could provide the Applicant's invention as claimed. Hindsight cannot be the basis for motivation, which is not sufficient to meet the burden of sustaining a 35 U.S.C. §103(a) rejection.

Thus, claims 2, 3, 8, 9, 11, 12, and 17-20 of the present invention are not taught or suggested by Costello and Walker. Combining these references fails to teach or yield the invention as claimed. The combination of these references fails to teach or suggest all the elements of the claims. Further, one of skill in the art would not be motivated to make such a combination. Therefore, the present invention is not obvious in light of any combination of Costello and Walker. Withdrawal of the §103(a) rejection to claims 2, 3, 8, 9, 11, 12, and 17-20 is therefore respectfully requested.

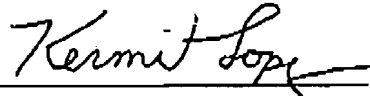## IV.   Conclusion

In view of the foregoing discussion, the Applicant has responded to each and every rejection of the Official Action.   The Applicant has clarified the structural distinctions of the present invention.   Applicant respectfully requests the withdrawal of the rejections under 35 U.S.C. §102(b) and §103(a) based on the preceding remarks.   Reconsideration and allowance of Applicant's application is also respectfully solicited.

Should there be any outstanding matters that need to be resolved, the Examiner is respectfully requested to contact the undersigned representative to conduct an interview in an effort to expedite prosecution in connection with the present application.

Respectfully submitted,

Dated: April 23, 2007

Kermit Lopez
Attorney for Applicants
Registration No. 41,953
ORTIZ & LOPEZ, PLLC
P.O. Box 4484
Albuquerque, NM 87196-4484

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